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| 10/544,202                                | 08/02/2005  | Gillian Antoinette Mimmagh-Kelleher | NL 030113           | 8136             |
| 24737                                     | 7590        | 06/07/2010                          |                     |                  |
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| BRIARCLIFF MANOR, NY 10510                |             |                                     |                     |                  |
| EXAMINER                                  |             |                                     |                     |                  |
| STOUT, MICHAEL C                          |             |                                     |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GILLIAN MIMNAGH-KELLEHER, HENRICUS VERSPAGET,  
JOANNES BREMER, ADRIANUS ROMMERS, and  
WILHELMUS VERHOEVEN

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Appeal 2009-007939  
Application 10/544,202  
Technology Center 3700

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Decided: June 7, 2010

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Before JENNIFER D. BAHR, JOHN C. KERINS, and  
STEFAN STAICOVICI, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Gillian Mimmagh-Kelleher et al. (Appellants) appeal under 35 U.S.C. § 134 (2006) from the Examiner's decision rejecting claims 1-15. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2006).

## THE INVENTION

Appellants' invention relates to a device for determining a value that represents accelerations in at least two perpendicular directions. Spec. 1, ll. 1-2. The device includes a sensor system 2 having sensors 8, 9, and 10 with outputs 11, 12, and 13 connected to an adding element 3 via connections 11', 12' and 13', a signal processing means 4, a memory 5, connection means 6, and a display means 7. Spec. 3, ll. 25-32 and fig. 1.

Claim 1 is representative of the claimed invention and reads as follows:

1. A device for determining a value that is representative of accelerations in at least two mutually perpendicular directions, the device comprising

a sensor system including at least two accelerometers with which acceleration in the mutually perpendicular directions is convertible into electric signals while the value is determinable by signal processing means from an electric signal formed from the electric signals,

wherein prior to the signal processing means electric signals from the at least two accelerometers are addable together by an adding element to form the electric signal,

wherein outputs of the at least two accelerometers are directly connected to the adding element to form the electric signal for processing by the signal processing means.

## THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

|             |                    |               |
|-------------|--------------------|---------------|
| Richardson  | US 5,976,083       | Nov. 2, 1999  |
| Berther     | US 5,983,722       | Nov. 16, 1999 |
| Depeursinge | US 6,201,476 B1    | Mar. 13, 2001 |
| Mantyljarvi | US 2002/0082079 A1 | Jun. 27, 2002 |
| Raz         | US 6,639,537 B1    | Oct. 28, 2003 |
| Damen       | EP 1 256 316 A1    | Nov. 13, 2002 |

Carlijn V.C. Bouten, Karel T.M. Koekkoek, Maarten Verduin, Rens Kodde, and Jan D. Janssen, *A Triaxial Accelerometer and Portable Data Processing Unit for the Assessment of Daily Physical Activity*, IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, VOL. 44, NO. 3, PAGE 136-147, MARCH 1997.

The following rejections are before us for review:

The Examiner rejected claims 1, 2, 5, 6, and 13-15 under 35 U.S.C. § 102(b) as anticipated by Depeursinge.

The Examiner rejected claims 4 and 12 under 35 U.S.C. § 103(a) as unpatentable over Depeursinge and Mantyljarvi.

The Examiner rejected claims 1, 2, 5, 6, 10, and 13-15 under 35 U.S.C. § 103(a) as unpatentable over Damen and Bouten.

The Examiner rejected claims 4 and 12 under 35 U.S.C. § 103(a) as unpatentable over Damen, Bouten, and Raz.

The Examiner rejected claims 3 and 11 under 35 U.S.C. § 103(a) as unpatentable over Damen, Bouten, and Berther.

The Examiner rejected claims 7-9 under 35 U.S.C. § 103(a) as unpatentable over Damen, Bouten, and Richardson.

## SUMMARY OF DECISION

We REVERSE.

## OPINION

Appellants argue that in Depeursing the “outputs of the accelerometers [2a, 2b, and 2c] are NOT directly connected” to adding element 24. App. Br. 13. Similarly, with respect to the disclosure of Damen, Appellants argue that “the three accelerometers 14 are NOT directly connected to the A/D converter 16, but are connected through an amplifier 15.” App. Br. 15. In response, the Examiner takes the position that “a direct electrical connection refers to a physical connection,” rather than a wireless or remote connection. Ans. 15. In other words, the term “direct electrical connection,” according to the Examiner’s interpretation, is sufficiently broad so as to encompass a connection between two elements that are connected to one another via intermediate elements, so long as the connections are physical connections. We disagree with the Examiner’s position for the following reasons.

When construing claim terminology in the United States Patent and Trademark Office, claims are to be given their broadest reasonable interpretation consistent with the specification, reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). In this case, Appellants’ Specification does not expressly define the term “direct” or otherwise indicate that this term is used in a manner other than its ordinary and customary meaning. We agree with Appellants that an ordinary and customary meaning of the term “direct” is “without anyone or

anything else being involved or between” or “with nothing or no one between.” *See* Reply Br. 3. Hence, like Appellants, we construe the phrase “directly connected” to mean that the outputs of the accelerometers are connected to the adding element without anything else, that is, without any intervening structure in-between. Furthermore, the Specification clearly describes the outputs 11, 12, and 13 of sensors 8, 9, and 10, respectively, connected to the adding element 3 via connections 11', 12' and 13' without any intervening structure in-between. *See* Spec. 3, ll. 30-31 and fig. 1. The Examiner has not pointed to any portion of Appellants' Specification, and we have not found any portion, that describes or even mentions a wireless or remote connection, or distinguishes a direct connection from a wireless or remote connection. In conclusion, for the foregoing reasons, the Examiner's construction of the phrase “directly connected” to mean a physical connection is unreasonable.

It is our finding that in Depeursinge, the integrators 3 and 4 are located between the outputs of accelerometers 2a, 2b, 2c and adding element 24. Depeursinge, fig. 1. Similarly, in Damen, the amplifiers 15 are located between the outputs of the three accelerometers 14 and the adding junction prior to the A/D converter 16. Damen, fig. 3. Furthermore, we decline to adopt the Examiner's interpretation of Damen to consider the acceleration sensor 14 and the amplifier 15 together to constitute a single sensor component because the claimed invention specifically requires a direct connection between the output of the accelerometer and the adding element and not between a sensor that includes an accelerometer and an adding element. *See* App. Br. 17. Moreover, we note that Damen specifically discloses that the acceleration sensor 14 is an accelerometer. Damen, col. 3,

para. [0021]. In conclusion, neither Depeursinge nor Damen discloses that the outputs of the accelerometers are *directly connected* to the adding element, as required by each independent claim 1, 5, and 15.

Accordingly, the rejection of claims 1, 2, 5, 6, and 13-15 under 35 U.S.C. § 102(b) as anticipated by Depeursinge cannot be sustained.

The disclosure of each of Mantyjärvi, Bouten, Raz, Berther, and Richardson does not cure the deficiencies of Depeursinge and Damen as described above. Therefore, the rejections under 35 U.S.C. § 103(a) of claims 4 and 12 as unpatentable over Depeursinge and Mantyjärvi; claims 1, 2, 5, 6, 10, and 13-15 as unpatentable over Damen and Bouten; claims 4 and 12 as unpatentable over Damen, Bouten, and Raz; claims 3 and 11 as unpatentable over Damen, Bouten, and Berther; and claims 7-9 as unpatentable over Damen, Bouten, and Richardson, likewise cannot be sustained.

#### DECISION

The Examiner's decision to reject claims 1-15 is reversed.

#### REVERSED

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